

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**RING TECHNOLOGY ENTERPRISES OF  
TEXAS, LLC**

**Plaintiff,**

**v.**

- (1) ADD-ON COMPUTER PERIPHERALS,  
LLC D/B/A ACP-EP MEMORY,**
- (2) ACTICA, INC.,**
- (3) APACER MEMORY AMERICA, INC.,**
- (4) APACER TECHNOLOGY, INC.,**
- (5) ATP ELECTRONICS, INC.,**
- (6) ACTIONTEC ELECTRONICS, INC.,**
- (7) AVANT TECHNOLOGY INC.,**
- (8) ALL COMPONENTS, INC.,**
- (9) ACI GROUP, LLC D/B/A AVANT  
NORTH AMERICA,**
- (10) AXIOM MEMORY SOLUTIONS, LLC,**
- (11) BUFFALO TECHNOLOGY (USA),  
INC.,**
- (12) BUFFALO, INC.,**
- (13) MELCO HOLDINGS INC.,**
- (14) CENTON ELECTRONICS, INC.,**
- (15) CORSAIR MEMORY, INC.,**
- (16) DATARAM CORPORATION,**
- (17) EDGE TECH CORPORATION,**
- (18) UPGRADEDETECT, INC. D/B/A  
GOLDENRAM,**
- (19) HYNIX SEMICONDUCTOR INC.,**
- (20) HYNIX SEMICONDUCTOR AMERICA  
INC.,**
- (21) INFINEON TECHNOLOGIES AG,**
- (22) INFINEON TECHNOLOGIES NORTH  
AMERICA CORP.,**
- (23) LEGACY ELECTRONICS, INC.,**
- (24) LEGEND CORPORATE SERVICES  
PTY LIMITED,**
- (25) LEGEND CORPORATION LIMITED,**
- (26) LENOVO (UNITED STATES) INC.  
D/B/A LENOVO INTERNATIONAL,**
- (27) LENOVO GROUP LIMITED D/B/A  
LEGEND,**

**Civil Action No. \_\_\_\_\_**

**JURY TRIAL DEMANDED**

- (28) MITECS INC.,**
- (29) MUSHKIN INC. D/B/A ENHANCED  
NETWORK SYSTEMS, MUSHKIN  
ENHANCED AND MUSHKIN  
ENHANCED MEMORY,**
- (30) NEC ELECTRONICS AMERICA, INC.,**
- (31) NEC CORPORATION,**
- (32) NETLIST, INC.,**
- (33) QIMONDA AG,**
- (34) QIMONDA NORTH AMERICA CORP.,**
- (35) RAMAXEL TECHNOLOGY LIMITED,**
- (36) RAMAXEL TECHNOLOGY  
(SHENZHEN) LIMITED,**
- (37) SUPER TALENT TECHNOLOGY,  
CORP.,**
- (38) SWISSBIT AG,**
- (39) SWISSBIT NA, INC.,**
- (40) TRANSCEND INFORMATION, INC.,**
- (41) TWINMOS TECHNOLOGIES INC.,**
- (42) UNIGEN CORPORATION, AND**
- (43) WINTEC INDUSTRIES, INC.**

**Defendants.**

**COMPLAINT FOR PATENT INFRINGEMENT**

This is an action for patent infringement in which Plaintiff, RING TECHNOLOGY ENTERPRISES OF TEXAS, LLC, makes the following allegations against defendants; ADD-ON COMPUTER PERIPHERALS, LLC D/B/A ACP-EP MEMORY; ACTICA, INC.; APACER MEMORY AMERICA, INC.; APACER TECHNOLOGY, INC.; ATP ELECTRONICS, INC.; ACTIONTEC ELECTRONICS, INC.; AVANT TECHNOLOGY INC.; ALL COMPONENTS, INC.; ACI GROUP, LLC D/B/A AVANT NORTH AMERICA; AXIOM MEMORY SOLUTIONS, LLC; BUFFALO TECHNOLOGY (USA), INC.; BUFFALO, INC.; MELCO HOLDINGS INC.; CENTON ELECTRONICS, INC.; CORSAIR MEMORY, INC.; DATARAM CORPORATION; EDGE TECH CORPORATION; UPGRADEDETECT, INC. D/B/A GOLDENRAM; HYNIX SEMICONDUCTOR INC.; HYNIX SEMICONDUCTOR AMERICA INC.; INFINEON TECHNOLOGIES AG; INFINEON TECHNOLOGIES NORTH AMERICA CORP.; LEGACY ELECTRONICS, INC.; LEGEND CORPORATE SERVICES PTY LIMITED; LEGEND CORPORATION LIMITED; LENOVO (UNITED STATES) INC. D/B/A LENOVO INTERNATIONAL; LENOVO GROUP LIMITED D/B/A LEGEND; MITECS INC.; MUSHKIN INC. D/B/A ENHANCED NETWORK SYSTEMS, MUSHKIN ENHANCED AND MUSHKIN ENHANCED MEMORY; NEC ELECTRONICS AMERICA, INC.; NEC CORPORATION; NETLIST, INC.; QIMONDA AG; QIMONDA NORTH AMERICA CORP.; RAMAXEL TECHNOLOGY LIMITED; RAMAXEL TECHNOLOGY (SHENZHEN) LIMITED; SUPER TALENT TECHNOLOGY, CORP.; SWISSBIT AG; SWISSBIT NA, INC.; TRANSCEND INFORMATION, INC.; TWINMOS TECHNOLOGIES INC.; UNIGEN CORPORATION; AND WINTEC INDUSTRIES, INC. (collectively the “Defendants”).

**PARTIES**

1. Plaintiff Ring Technology Enterprises of Texas, LLC (“Ring”) is a Texas limited liability company having a principal place of business at 719 West Front Street, Suite 274, Tyler, Texas 75702.

2. On information and belief, Defendant Add-On Computer Peripherals, LLC d/b/a ACP-EP Memory (“ACP-EP”) is a California corporation with its principal place of business at 34 Mauchly Ste. A, Irvine, CA 92618-2357. ACP-EP has appointed James Patton, 28 Deerfield Place, Trabuco Canyon, CA 92679, as its agent for service of process.

3. On information and belief, Defendant Actica, Inc. (“Actica”) is a California corporation with its principal place of business at 238 E Caribbean Dr., Sunnyvale, CA 94089-1001. Actica has appointed Ying Lee, 1619 Braly Ave, Milpitas, CA 95030, as its agent for service of process.

4. On information and belief, Defendant Apacer Memory America, Inc. (“Apacer”) is a California corporation with its principal place of business at 380 Fairview Way, Milpitas, CA 95035-3062. Apacer has appointed CT Corporation System, 818 West 7th Street, Los Angeles, 90017, as its agent for service of process.

5. On information and belief, Defendant Apacer Technology, Inc. (“Apacer Taiwan”) is a Taiwanese corporation with its principal place of business located at 4f, 75 Hsin Tai 5th Rd., Secm 1, 22102 Hsichih City, Taipei, Taiwan. On information and belief, Apacer may be served at 4f, 75 Hsin Tai 5th Rd., Secm 1, 22102 Hsichih City, Taipei, Taiwan, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

6. On information and belief, Defendant ATP Electronics, Inc. (“ATP”) is a

California corporation with its principal place of business at 750 N Mary Ave, Sunnyvale, CA 94085. ATP has appointed Danny T. Lin, 12750 Glen Arbor Ct, Saratoga, CA 95070, as its agent for service of process.

7. On information and belief, Defendant Actiontec Electronics, Inc. (“Actiontec”) is a California corporation with its principal place of business at 760 N Mary Ave, Sunnyvale, CA 94085. Actiontec has appointed Dean Chang, 760 N. Mary Ave, Sunnyvale, CA 94085, as its agent for service of process.

8. On information and belief, Defendant Avant Technology Inc. (“Avant”) is a Nevada corporation with its principal place of business at 9715 Burnet Rd., Ste. A500, Austin, TX 78758-5215. Avant has appointed Corporation Trust Co. of Nevada, 311 S. Division St., Carson City NV, 89703, as its agent for service of process.

9. On information and belief, Defendant All Components, Inc. (“ACI”) is a Nevada corporation with its principal place of business at 9715 Burnet Rd., Ste. A500, Austin, TX 78758-5215. ACI has appointed Corporation Trust Co. of Nevada, 311 S. Division St., Carson City NV, 89703, as its agent for service of process.

10. On information and belief, Defendant ACI Group, LLC d/b/a Avant North America (“Avant NA”) is a Texas corporation with its principal place of business at 9715 Burnet Rd., Ste. A500, Austin, TX 78758-5215. Avant NA has appointed Corporation Trust Co. of Nevada, 311 S. Division St., Carson City NV, 89703, as its agent for service of process.

11. On information and belief, Defendant Axiom Memory Solutions, LLC (“Axiom”) is a California corporation with its principal place of business at 19651 Descartes, Foothill Ranch, CA 92610-2609. Axiom has appointed Keith Carpenter, 19651 Descartes, Foothill Ranch, CA 92610-2609, as its agent for service of process.

12. On information and belief, Defendant Buffalo Technology (USA), Inc. (“Buffalo”) is a Delaware corporation with its principal place of business at 1100 Metric Blvd., Ste. 750, Austin TX, 78758. Buffalo has appointed Corporation Trust Company, Corporation Trust Center, 1209 Orange St., Wilmington, DE 19801, as its agent for service of process.

13. On information and belief, Defendant Buffalo Inc. (“Buffalo Japan”) is a Japanese corporation with its principal place of business located at 4-15, Shibatahondori, Minami-Ku, 457-0814 Nagoya, Aichi, Japan. On information and belief, Buffalo Japan may be served at 4-15, Shibatahondori, Minami-Ku, 457-0814 Nagoya, Aichi, Japan, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

14. On information and belief, Defendant Melco Holdings Inc. (“Melco”) is a Japanese corporation with its principal place of business located at 4-15, Shibatahondori, Minami-Ku, 457-0814 Nagoya, Aichi, Japan. On information and belief, Melco may be served at 4-15, Shibatahondori, Minami-Ku, 457-0814 Nagoya, Aichi, Japan, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

15. On information and belief, Defendant Centon Electronics, Inc. (“Centon”) is a California corporation with its principal place of business at 15 Argonaut, Aliso Viejo, CA 92656. Centon has appointed Joseph P. Divincenzo, 2121 E Coast Hwy., St. 280, Corona Del Mar, CA 92625, as its agent for service of process.

16. On information and belief, Defendant Corsair Memory, Inc. (“Corsair”) is a California corporation with its principal place of business at 46221 Landing Pkwy, Fremont, CA 94538-6407. Corsair has appointed Steven Cooper, 150 Spear Street, Suite 1800, San Francisco,

CA 94105, as its agent for service of process.

17. On information and belief, Defendant Dataram Corporation (“Dataram”) is a New Jersey corporation with its principal place of business at 186 Princeton Rd., West Windsor, NJ 08550. Dataram has appointed the Corporation Trust Company, 820 Bear Tavern Road West Trenton, NJ 08628, as its agent for service of process.

18. On information and belief, Defendant Edge Tech Corporation (“Edge Tech”) is an Oklahoma corporation with its principal place of business at 1310 N. Hills Shopping Ctr., Ada, OK 74820-1868. Edge Tech has appointed William J. Thompson, 1310 N Hills Center, Ada OK 74820, as its agent for service of process.

19. On information and belief, Defendant Upgradedetect, Inc. d/b/a Goldenram (“Goldenram”) is a California corporation with its principal place of business at 12 Whatney, Irvine, CA 92618-2807. Goldenram has appointed Christ Zomoya, 12 Whatney, Irvine, CA 92618, as its agent for service of process.

20. On information and belief, Defendant Hynix Semiconductor Inc. (“Hynix Semiconductor”) is a Korean corporation with its principal place of business located at San 136-1, Ami-ri, Bubai-eu Icheon, Gyeonggi 467-860, South Korea. On information and belief, Hynix Semiconductor may be served at San 136-1, Ami-ri, Bubai-eu Icheon, Gyeonggi 467-860, South Korea, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

21. On information and belief, Defendant Hynix Semiconductor America Inc. (“Hynix”) is a California corporation with its principal place of business at 3101 N. 1st, San Jose, CA 95134. Hynix has appointed Corporation Service Company which will do business in California as CSC-Lawyers Incorporating Service, 2730 Gateway Oaks Dr., Ste. 100,

Sacramento, CA 95833, as its agent for service of process.

22. On information and belief, Defendant Infineon Technologies AG (“Infineon AG”) is a German corporation with its principal place of business located at Am Campeon 1-12 85579 Neubiberg, Germany. On information and belief, Infineon AG may be served at Am Campeon 1-12 85579 Neubiberg, Germany, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

23. On information and belief, Defendant Infineon Technologies North America Corp. (“Infineon”) is a Delaware corporation with its principal place of business at 640 N. McCarthy Blvd. Milpitas, CA 95035. Infineon has appointed Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington DE 19808 as its agent for service of process.

24. On information and belief, Defendant Legacy Electronics, Inc. (“Legacy”) is a California corporation with its principal place of business at 211 Avendia Fabricante, San Clemente, CA 92672. Legacy has appointed David Quezada, 211 Avendia Fabricante, San Clemente, CA 92672, as its agent for service of process.

25. On information and belief, Defendant Legend Corporate Services Pty Limited (“Legend Services”) is an Australian corporation with its principal place of business located at 1 Butler Drive, 5014 Hendon, South Australia, Australia. On information and belief, Legend Services may be served at 1 Butler Drive, 5014 Hendon, South Australia, Australia, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

26. On information and belief, Defendant Legend Corporation Limited (“Legend”) is an Australian corporation with its principal place of business located at 1 Butler Drive, 5014 Hendon, South Australia, Australia. On information and belief, Legend may be served at 1



Butler Drive, 5014 Hendon, South Australia, Australia, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

27. On information and belief, Defendant Lenovo (United States) Inc. d/b/a Lenovo International (“Lenovo”) is a Delaware corporation with its principal place of business at 1009 Think Pl., Morrisville, NC 27560-9002. Lenovo has appointed Corporation Trust Company, Corporation Trust Center, 1209 Orange St., Wilmington, DE 19801, as its agent for service of process.

28. On information and belief, Defendant Lenovo Group Limited d/b/a Legend (“Lenovo Group”) is a Hong Kong corporation with its principal place of business located at 23rd Fl. Lincoln House, Talkoo Place, 979 King’s Rd., Quarry Bay, Hong Kong. On information and belief, Lenovo Group may be served at 23rd Fl. Lincoln House, Talkoo Place, 979 King’s Rd., Quarry Bay, Hong Kong, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

29. On information and belief, Defendant Mitecs Inc. (“Mitecs”) is a California corporation with its principal place of business at 27881 La Paz Rd., G180, Laguna Nigel, CA 92677. Mitecs has appointed Phillipe Rochon, 27881 La Paz Rd., G180, Laguna Nigel, CA 92677, as its agent for service of process.

30. On information and belief, Defendant Mushkin Inc. d/b/a Enhanced Network Systems, Mushkin Enhanced and Mushkin Enhanced Memory (“Mushkin”) is a Colorado corporation with its principal place of business at 317 Inverness Way South, Englewood, CO 80112-5846. Mushkin has appointed Demetrios George Stathakis, 317 Inverness Way South, No. 130, Englewood, CO 80112, as its agent for service of process.

31. On information and belief, Defendant NEC Electronics America, Inc. (“NEC

Electronics”) is a California corporation with its principal place of business at 2880 Scott Blvd., Santa Clara, CA 95050. NEC Electronics has appointed CT Corporation System, 818 West Seventh Street, Los Angeles CA 90017, as its agent for service of process.

32. On information and belief, Defendant NEC Corporation (“NEC”) is a Japanese corporation with its principal place of business located at 7-1, Shiba 5-chome, Minato-ku, Tokyo, Japan. On information and belief, NEC may be served at 7-1, Shiba 5-chome, Minato-ku, Tokyo, Japan, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

33. On information and belief, Defendant Netlist, Inc. (“Netlist”) is a California corporation with its principal place of business at 51 Discovery, Irvine, CA 92618. Netlist has appointed Gail Itow, 51 Discovery, Irvine, CA 92618, as its agent for service of process.

34. On information and belief, Defendant Qimonda AG (“Qimonda AG”) is a German corporation with its principal place of business located at Gustav-Heinemann-Ring 212, 81739 Munich, Germany. On information and belief, Qimonda AG may be served at Gustav-Heinemann-Ring 212, 81739 Munich, Germany, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

35. On information and belief, Defendant Qimonda North America Corp. (“Qimonda”) is a Delaware corporation with its principal place of business at 1730 N. First St., F-5, San Jose, CA 95112-4508. Qimonda has appointed Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801, as its agent for service of process.

36. On information and belief, Defendant Ramaxel Technology Limited (“Ramaxel”) is a Hong Kong corporation with its principal place of business located at Rm B1 6/F Yee Lim

Indl. Ctr., Blk. B, 2-28 Kwai Lok St. Kwai Chung, New Territories, Hong Kong. On information and belief, Ramaxel may be served at Rm B1 6/F Yee Lim Indl. Ctr., Blk. B, 2-28 Kwai Lok St. Kwai Chung, New Territories, Hong Kong, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

37. On information and belief, Defendant Ramaxel Technology (Shenzhen) Limited (“Ramaxel Shenzhen”) is a Chinese corporation with its principal place of business located at 2-5/F Dongnan Industry and Trade, Mansion, Houhai Ave, Shekou, 518067 Shenzhen, Guangdong, China. On information and belief, Ramaxel Shenzhen may be served at 2-5/F Dongnan Industry and Trade, Mansion, Houhai Ave, Shekou, 518067 Shenzhen, Guangdong, China, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

38. On information and belief, Defendant Super Talent Technology, Corp. (“Super Talent”) is a California corporation with its principal place of business at 2077 N. Capitol Ave., San Jose, CA 95131-1009. Super Talent has appointed Abraham C. Ma, 743 Sostice, Fremont, CA 94539, as its agent for service of process.

39. On information and belief, Defendant Swissbit AG (“Swissbit AG”) is a Swiss corporation with its principal place of business located at Industriestrasse 4-8, 9552 Bronschofen, Sankt Gallen, Switzerland. On information and belief, Swissbit AG may be served at 2 Industriestrasse 4-8, 9552 Bronschofen, Sankt Gallen, Switzerland, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

40. On information and belief, Defendant Swissbit NA, Inc. (“Swissbit”) is a New York corporation with its principal place of business at 14 Willet Ave. Suite 301a, Port Chester,

NY 10573-4351. Swissbit has appointed Anthony Cerreta, 14 Willet Ave. Suite 301a, Port Chester, NY 10573-4351, as its agent for service of process.

41. On information and belief, Defendant Transcend Information, Inc. (“Transcend”) is a California corporation with its principal place of business at 1645 N. Brian St., Orange, CA 92667-3423. Transcend has appointed Chung-Won Shu, 1645 N. Brian St., Orange, CA 92667-3423, as its agent for service of process.

42. On information and belief, Defendant TwinMos Technologies Inc. (“TwinMos”) is a Taiwanese corporation with its principal place of business located at 3, Tzu Chiang Rd., 30352 Hukou, Hsinchu, Taiwan. On information and belief, TwinMos may be served at 3, Tzu Chiang Rd., 30352 Hukou, Hsinchu, Taiwan, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

43. On information and belief, Defendant Unigen Corporation (“Unigen”) is a California corporation with its principal place of business at 45388 Warm Springs Blvd., Fremont, CA 94539. Unigen has appointed Sacha Heng, 45388 Warm Springs Blvd., Fremont, CA 94539, as its agent for service of process.

44. On information and belief, Defendant Wintec Industries, Inc. (“Wintec”) is a California corporation with its principal place of business at 675 Sycamore Drive, Milipitas, CA 95035. Wintec has appointed Ming-Jen Chen, 675 Sycamore Drive, Milipitas, CA 95035, as its agent for service of process.

#### **JURISDICTION AND VENUE**

45. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

46. Venue is proper in this district under 28 U.S.C. §§ 1391(c) and 1400(b). On information and belief, each of the Defendants has transacted business in this district, and has committed and/or induced acts of patent infringement in this district.

47. On information and belief, each of the Defendants is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this Judicial District.

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 6,879,526**

48. Plaintiff Ring is the owner by assignment of United States Patent No. 6,879,526 (the "'526 patent") entitled METHODS AND APPARATUS FOR IMPROVED MEMORY ACCESS. The '526 patent issued on April 12, 2005. A true and correct copy of the '526 patent is included as Exhibit A.

49. Upon information and belief, Defendant ACP-EP has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the ACP-EP 16 GB (2 x 8 GB) FB-DIMM Memory, 240-pin, 667 MHz, No AM667D2DFB5/16GKIT, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering

for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, ACP-EP has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

50. Upon information and belief, Defendant Actica has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Actica 4GB DDR2-800, Fully Buffered FB-DIMM, No. ACT4GFR72M4G800H, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Actica has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

51. Upon information and belief, Defendant Apacer has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Apacer 2GB Fully Buffered FB-DIMM module, DDR2-533 CL4, No. 78.A7G9G.401, a random access memory device employing an Advanced Memory Buffer covered by one or more claims

of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Apacer has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

52. Upon information and belief, Defendant Apacer Taiwan has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Apacer 2GB Fully Buffered FB-DIMM module, DDR2-533 CL4, No. 78.A7G9G.401, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Apacer Taiwan has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

53. Upon information and belief, Defendant ATP has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the ATP 1GB FBDIMM Registered ECC, No. AP28K72S8BHE6S, a random access memory device

employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, ATP has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

54. Upon information and belief, Defendant Actiontec has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the ATP 1GB FBDIMM Registered ECC, No. AP28K72S8BHE6S, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Actiontec has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

55. Upon information and belief, Defendant Avant has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the



Avant 4096MB DDR2, 512MX72, Fully Buffered DIMM, 240-pin, No. AVF7251B62E5800F4, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Avant has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

56. Upon information and belief, Defendant ACI has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Avant 4096MB DDR2, 512MX72, Fully Buffered DIMM, 240-pin, No. AVF7251B62E5800F4, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, ACI has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

57. Upon information and belief, Defendant Avant NA has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a

shift frequency received from a clock signal, including, by way of example and without limitation, the Avant 240-pin, ECC DDR2 Fully Buffered FBDIMM, No. AVF7251B62E5800F3, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Avant NA has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

58. Upon information and belief, Defendant Axiom has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Axiom 2GB Fully Buffered 800MHz, PC2-6400, 240-pin, 1.8v, CL5, ECC DDR2 DIMM, No. SY2089938, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Axiom has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

59. Upon information and belief, Defendant Buffalo has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data

from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Buffalo Certified, 4 GB (2 x 2 GB) Memory, FB-DIMM, 240-pin, 667 MHz (PC2-5300), No. D2F667CW-K4G, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Buffalo has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

60. Upon information and belief, Defendant Buffalo Japan has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the TechWorks, 2 GB (2 x 1 GB) Memory, FB-DIMM, 240-pin, 667 MHz (PC2-5300), No. A2F667E1GX2, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Buffalo Japan has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

61. Upon information and belief, Defendant Melco has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more

devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Buffalo Certified, 4 GB (2 x 2 GB) Memory, FB-DIMM, 240-pin, 667 MHz (PC2-5300), No. D2F667CW-K4G, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Melco has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

62. Upon information and belief, Defendant Centon has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Centon 1GB DDR2 PC2-5300, 667MHz, 240-pin, SDRAM, Fully Buffered, ECC DIMM, No. 1GBDDR2FB667, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Centon has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

63. Upon information and belief, Defendant Corsair has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States,

by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Corsair 1GB PC2700 333MHz 184-pin ECC Registered Fully Buffered Server Memory, No. CM72SD1024RLP-2700, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Corsair has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

64. Upon information and belief, Defendant Dataram has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Dataram 8GB DDR2 Fully Buffered CL5 Memory, No. DRL667FB/8GB, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Dataram has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

65. Upon information and belief, Defendant Edge Tech has been and now is

infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Edge Tech 4GB (2 x 2GB), PC25300, 240-pin, ECC Fully Buffered DIMM Kit DRX4, No. PE20746502, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Edge Tech has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

66. Upon information and belief, Defendant Goldenram has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Golden Ram 4GB, PC2-4200, 240-PIN, Fully Buffered ECC DDR2 SDRAM DIMM, No. 7521217, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Goldenram has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

67. Upon information and belief, Defendant Hynix Semiconductor has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Hynix 1GB, 667Mhz, DDR2, Fully Buffered DIMM, No. HYS72T128420HFD-3S, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Hynix Semiconductor has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

68. Upon information and belief, Defendant Hynix has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Hynix 1GB, 667Mhz, DDR2, Fully Buffered DIMM, No. HYS72T128420HFD-3S, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Hynix has injured Plaintiff and is thus liable to Plaintiff for infringement of the

‘526 patent pursuant to 35 U.S.C. §271.

69. Upon information and belief, Defendant Infineon AG has been and now is infringing the ‘526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Infineon 1 GB FB-DIMM Memory, 240-pin, 533 MHz (PC2-4200), No. MEM-DR210L-IL02-FB5, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the ‘526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the ‘526 patent, Infineon AG has injured Plaintiff and is thus liable to Plaintiff for infringement of the ‘526 patent pursuant to 35 U.S.C. §271.

70. Upon information and belief, Defendant Infineon has been and now is infringing the ‘526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Infineon 1 GB FB-DIMM Memory, 240-pin, 533 MHz (PC2-4200), No. MEM-DR210L-IL02-FB5, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the ‘526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more



claims of the '526 patent, Infineon has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

71. Upon information and belief, Defendant Legacy has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Legacy 1GB, PC2-5300, DDR2-667MHz, ECC Fully Buffered, CL5, 240-Pin, DIMM Dual Rank Memory Module, Mfr. No. N517K4C90BN-30A, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Legacy has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

72. Upon information and belief, Defendant Legend Services has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the 240-pin x8, Registered DDR2, 18 memory chips, and 240-pin x8, Fully Buffered FB-DIMM, 9 memory chips, Nos. B82FRCB, B82VR844, a random access memory device

employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Legend Services has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

73. Upon information and belief, Defendant Legend has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the 240-pin x8, Registered DDR2, 18 memory chips, and 240-pin x8, Fully Buffered FB-DIMM, 9 memory chips, Nos. B82FRCB, B82VR844, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Legend has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

74. Upon information and belief, Defendant Lenovo has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the

Lenovo 45J6192 ThinkServer, 2GB, PC2-5300 (667MHz), ECC, DDR2, FBDIMM Memory Module, No. 45J6192, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Lenovo has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

75. Upon information and belief, Defendant Lenovo Group has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Lenovo 45J6192 ThinkServer, 2GB, PC2-5300 (667MHz), ECC, DDR2, FBDIMM Memory Module, No. 45J6192, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Lenovo Group has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

76. Upon information and belief, Defendant Mitecs has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data

from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the 12GB, PC2-5300, DDR2 ECC, Fully Buffered FB-DIMM (6 X 2GB) KIT XSERVE, Macimprove.com Part's No. 322, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Mitecs has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

77. Upon information and belief, Defendant Mushkin has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Mushkin 1GB PerfectMatch Series, 240-Pin, PC2-5300 DDR2 Fully Buffered ECC Memory, No. 971538A, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Mushkin has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

78. Upon information and belief, Defendant NEC Electronics has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling

one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the NEC 8GB, 240-pin, PC2-5300 CL5, Fully Buffered ECC DDR2-667 FBDIMM, Memoryx Parts No. NEC-8GB-DDR2-667-F, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, NEC Electronics has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

79. Upon information and belief, Defendant NEC has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the NEC 8GB, 240-pin, PC2-5300 CL5, Fully Buffered ECC DDR2-667 FBDIMM, Memoryx Parts No. NEC-8GB-DDR2-667-F, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, NEC has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

80. Upon information and belief, Defendant Netlist has been and now is infringing

the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Netlist 8GB PC2-5300 DDR2-667MHz ECC Fully Buffered CL5 240-Pin DIMM Quad Rank Memory Module, No. NMD1G7B2250BFD53I5HC, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Netlist has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

81. Upon information and belief, Defendant Qimonda AG has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Qimonda 2G DDR2 667 ECC FBDIMM, No. HYS72T256921EFA-3S-C2, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Qimonda AG has injured Plaintiff and is thus liable to Plaintiff for infringement

of the '526 patent pursuant to 35 U.S.C. §271.

82. Upon information and belief, Defendant Qimonda has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Qimonda 2G DDR2 667 ECC FBDIMM, No. HYS72T256921EFA-3S-C2, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Qimonda has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

83. Upon information and belief, Defendant Ramaxel has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Ramaxel 512MB PC2-4200 DDR2-533MHz ECC Fully Buffered CL4 240-Pin DIMM Original Memory Module, No. RMP1341EG138D6W-533, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and

related services that are covered by one or more claims of the '526 patent, Ramaxel has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

84. Upon information and belief, Defendant Ramaxel Shenzhen has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Ramaxel 512MB PC2-4200 DDR2-533MHz ECC Fully Buffered CL4 240-Pin DIMM Original Memory Module, No. RMP1341EG138D6W-533, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Ramaxel Shenzhen has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

85. Upon information and belief, Defendant Super Talent has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Super Talent 2 GB Memory, FB-DIMM 240-pin, 667 MHz (PC2-5300), Universal



Product Identifiers No. T667FB2G4, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Super Talent has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

86. Upon information and belief, Defendant Swissbit AG has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Swissbit 1GB PC2-5300, DDR2-667MHz, ECC Fully Buffered CL5, 240-Pin, DIMM Memory Module, No. MEF12872C1BJ2EP-30RE, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Swissbit AG has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

87. Upon information and belief, Defendant Swissbit has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift

frequency received from a clock signal, including, by way of example and without limitation, the Swissbit 1GB PC2-5300, DDR2-667MHz, ECC Fully Buffered CL5, 240-Pin, DIMM Memory Module, No. MEF12872C1BJ2EP-30RE, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Swissbit has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

88. Upon information and belief, Defendant Transcend has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Transcend 4GB, 800MHz, DDR2-800/PC2-6400, ECC SDRAM, 240-pin, DIMM Memory Module, No. TS512MFB72V8R-T, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Transcend has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

89. Upon information and belief, Defendant TwinMos has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more

devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Twinmos 1GB, PC2-5300, DDR2-667MHz, ECC Fully Buffered, CL5 240-Pin, DIMM Original Memory Module, No. 8D-23JT5MHATP, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, TwinMos has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

90. Upon information and belief, Defendant Unigen has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Unigen 1GB, PC2-5300, 667MHz, ECC Fully Buffered, 240-Pin, DIMM Memory Module (64M x 8), No. UG12T7200L8BF-6AS, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Unigen has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

91. Upon information and belief, Defendant Wintec has been and now is infringing the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States,

by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, the Wintec 2 GB, FB-DIMM Memory, 240-pin, 667 MHz (PC2-5300), Universal Product Identifiers Nos. 3SRT6679FBD2G, 39C945341B-IL, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Wintec has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

92. On information and belief, to the extent any marking was required by 35 U.S.C. § 287, all predecessors in interest to the '526 patent have complied any with such requirements.

93. To the extent that facts learned in discovery show that any one of the Defendants' infringement of the '526 patent is or has been willful, Plaintiff Ring reserves the right to request such a finding at time of trial.

94. As a result of these Defendants' infringement of the '526 patent, Plaintiff Ring has suffered monetary damages in an amount adequate to compensate for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as fixed by the Court, and Plaintiff Ring will continue to suffer damages in the future unless Defendants' infringing activities are enjoined by this Court.

95. Unless a permanent injunction is issued enjoining these Defendants and their agents, servants, employees, representatives, affiliates, and all others acting or in active concert

therewith from infringing the '526 patent, Plaintiff Ring will be greatly and irreparably harmed.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff Ring respectfully requests that this Court enter:

1. A judgment in favor of Plaintiff Ring that Defendants have infringed the '526 patent, and that such infringement was willful;
2. A permanent injunction enjoining Defendants and their officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert therewith from infringement, inducing the infringement of, or contributing to the infringement of the '526 patent;
3. A judgment and order requiring Defendants to pay Plaintiff Ring its damages, costs, expenses, and prejudgment and post-judgment interest for Defendants' infringement of the '526 patent as provided under 35 U.S.C. § 284;
4. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff Ring its reasonable attorneys' fees; and
5. Any and all other relief to which Plaintiff Ring may show itself to be entitled.

**DEMAND FOR JURY TRIAL**

Plaintiff Ring, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Respectfully submitted,

**RING TECHNOLOGY ENTERPRISES OF  
TEXAS, LLC**

Dated: March 24, 2010

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